

## **DISCLAIMER**

*This electronic version of an SCC order is for informational purposes only and is not an official document of the Commission. An official copy may be obtained from the [Clerk of the Commission, Document Control Center](#).*

## **APPLICATION OF**

**KINDER MORGAN VIRGINIA LLC**

**CASE NO. PUE010423**

**For approval of a certificate of public convenience and necessity pursuant to Va. Code § 56-265.2, an exemption from Chapter 10 of Title 56, and interim approval to make financial commitments and undertake preliminary construction work**

## **REPORT OF HOWARD P. ANDERSON, JR., HEARING EXAMINER**

**February 26, 2002**

## **HISTORY OF THE CASE**

On July 26, 2001, Kinder Morgan Virginia LLC (“Kinder Morgan Virginia” or the “Company”) filed an Application with supporting testimony and exhibits requesting that the State Corporation Commission (“Commission”) grant the Company a certificate of public convenience and necessity (“CPCN”) pursuant to § 56-265.2 of the Code of Virginia to construct an approximately 560 megawatt (“MW”) natural gas-fired combined-cycle power plant (“Brunswick Generating Station” or the “facility”) in Brunswick County, Virginia. In addition, Kinder Morgan Virginia seeks an exemption from the provisions of Chapter 10 of Title 56, pursuant to § 56-265.2 B of the Code of Virginia, and interim approval to make financial expenditures and undertake preliminary construction work, pursuant to § 56-234.3 of the Code of Virginia.

On August 14, 2001, the Commission entered an order requiring the Company to provide public notice of its Application, establishing a procedural schedule for the filing of testimony and exhibits, assigning a Hearing Examiner to conduct further proceedings in this matter, and scheduling an evidentiary hearing for November 7, 2001.

On November 7, 2001, the evidentiary hearing was convened as scheduled. Donald G. Owens, Esquire, and John W. Daniel, II, Esquire, appeared on behalf of Kinder Morgan Virginia. Katharine Austin Hart, Esquire, and C. Meade Browder, Esquire, appeared on behalf of the Commission’s Divisions of Energy Regulation and Economics and Finance (“Staff”). James S. Copenhaver, Esquire, appeared on behalf of Columbia Gas of Virginia, Inc. (“Columbia Gas”). At the commencement of the hearing, Columbia Gas presented a Stipulation to which the parties had agreed.<sup>1</sup> Five public witnesses testified at the hearing. Their testimony is addressed below. Proof of service and notice was marked as Exhibit A and made a part of the record. A transcript is being filed with this Report.

---

<sup>1</sup>Ex. B.

## SUMMARY OF THE RECORD

### Description of the Proposed Facility

The Brunswick Generating Station will be a 560 MW natural gas-fired power plant that will be used principally to serve intermediate demand, with the capability of providing lesser amounts of peak and base load power. The proposed facility will use only natural gas and steam to produce electricity, and will operate 16 hours a day, up to six days a week. The proposed facility will have six General Electric LM6000 aeroderivative combustion turbines, one General Electric Frame 7 EA combustion turbine, and two steam turbines.

The proposed facility is primarily classified as an intermediate load facility; however, because of its unique design it can also provide a limited amount of base and peak load power utilizing a single frame turbine and duct burners, respectively. Kinder Morgan, Inc.<sup>2</sup> (“Kinder Morgan”) holds a patent pending for its configuration which can maintain maximum plant efficiency throughout a wide range of outputs (75 to 560 MW). Typical base load power plants that utilize a single large frame turbine can be operated only at full load without experiencing significant efficiency losses, higher emissions, and turbine maintenance penalties. The ability of the proposed facility to efficiently cycle between 75 and 560 MW ensures that the facility will not produce excess power and ambient emissions during periods of reduced demand.

The facility will operate as follows. Before the start of the intermediate power demand period (7 a.m.), the Frame 7EA turbine will be operating at part load producing 75 MW. After 7 a.m., the LM6000 turbines will be started, one at a time, to provide power in up to 55 MW increments as needed, and the Frame 7EA will be brought up to full load (110 MW). During the short period of peak demand (one to two hours), all seven turbines will be at full load producing 440 MW, and duct burners will be fired to provide up to an additional 120 MW. As the day progresses and demand decreases, the LM6000 turbines will be shut down one at a time. At the end of the intermediate power demand period (11 p.m.) all LM600 turbines will be shut down and the Frame 7EA turbine will be ramped back down to 75 MW. Because the LM6000 turbines are significantly less massive than the frame model turbine, they are able to start up much more rapidly (approximately 15 minutes to full load) and require no supplemental maintenance due to frequent start-ups. In contrast, a large frame combined-cycle turbine requires prolonged start-up periods (2 to 3 hours) to minimize thermal stresses, and the frame turbine will incur a maintenance penalty with each start-up.<sup>3</sup>

The proposed site of the Brunswick Generating Station is a 50-acre tract located in the midst of a larger 1273-acre heavily wooded tract located off State Route 603 in the southeastern corner of Brunswick County. The site adjoins an existing utility easement through which Dominion Virginia Power operates a 500 kV transmission line that will provide access to the transmission grid. The site also adjoins the right-of-way of the Lake Gaston water pipeline operated by the Cities of

---

<sup>2</sup>Kinder Morgan Virginia is wholly-owned by Kinder Morgan Power Company, which is wholly-owned by Kinder Morgan, Inc.

<sup>3</sup>Application, Application for PSD and Virginia Air Permits at 2, 3.

Virginia Beach and Chesapeake. The site is located approximately two miles south of a Transco gas transmission line that will provide fuel for the operation of the plant.

Written Comments

The Commission received one written comment opposing the site of the proposed facility from W. Michael Williams of 1722 Doyles Lake Road, Emporia, Virginia.<sup>4</sup> Mr. Williams claims that residents of the area were not included in the siting process until all decisions had been made. Mr. Williams states that he asked the Brunswick County Planning Commission to delay approval of the proposed facility site so that families in adjoining Greenville County could have time to investigate and possibly find a better site for the facility. Mr. Williams states that he made the same request to the County Administrator of Brunswick County. Nevertheless, the Brunswick County Planning Commission and the Board of Supervisors approved the proposed site for the facility.<sup>5</sup> Mr. Williams did not appear at the hearing on November 7, 2001.

Carmine Iadarola, project manager for the Kinder Morgan Virginia electric generation project in Brunswick County, addressed Mr. Williams' comments in his supplemental testimony<sup>6</sup> filed on October 19, 2001. Mr. Iadarola states that he met with Mr. Williams and other residents of Doyles Lake Road. This meeting was one of approximately twenty-five meetings Mr. Iadarola held with interested parties in Southside Virginia and northern North Carolina to discuss the project and answer questions.<sup>7</sup> Initially, the residents of Doyles Lake Road requested Kinder Morgan Virginia to move the project across the road from the planned site. Mr. Iadarola looked into moving the project site, but found it would be complicated and would have required starting over with the permitting process. Instead, Kinder Morgan Virginia agreed with the Brunswick County Board of Supervisors to provide an extra 150 feet of buffer around the eastern boundary of the project site.<sup>8</sup>

*PUBLIC WITNESSES*

Five public witnesses testified at the hearing; all spoke in favor of the proposed facility.

Robert C. Clary, Sr., spoke as an individual and as vice chairman of the Brunswick County Industrial Development Authority ("IDA"). Mr. Clary visited a Kinder Morgan plant near Denver, Colorado, to investigate potential noise and air pollution problems. He determined that neither was a major concern. Mr. Clary stated that the IDA is very much in favor of the proposed facility, which would provide a ready source of economical electricity for other industries interested in locating in Brunswick County.<sup>9</sup>

George R. Smith of Lawrenceville, Virginia, testified that the citizens of Brunswick County overwhelmingly support the proposed facility. Mr. Smith pointed out that, according to the 1990

---

<sup>4</sup>Mr. Williams is a resident of Greenville County, but lives about a mile and a half from the proposed location of the facility. (Tr. 52).

<sup>5</sup>Tr. 23.

<sup>6</sup>Ex. CI-3.

<sup>7</sup>Ex. CI-3, at 3. The Company also established a website that contains most of the public documents pertaining to the project and allows people to submit questions and participate in the permitting process. (Ex. CI-3, at 6).

<sup>8</sup>Tr. 55, 60. The result is a total of 250 feet of buffer on the eastern side of the property. (Tr. 51).

<sup>9</sup>Tr. 4, 5, 7.

census, Brunswick County is the sixth poorest county in Virginia. Out of a total of 5,499 households in the county, 4,203 have annual incomes of less than \$32,499. Almost one-fourth of the entire county population is below the poverty level. According to census figures, almost one-fourth of the adult population of the county does not have a high school education. Mr. Smith emphasized that Brunswick County needs the jobs, the tax revenues, and the other industries that the proposed facility could bring to the county.<sup>10</sup>

Jean E. Clary owns Century 21 Clary, a regional real estate firm, and she is the vice chair of the Virginia Economic Development Partnership. Ms. Clary stated she is excited about the proposed facility because it will bring quality jobs to the county and enhance the quality of life for the local citizens. The tax revenues will help the county's educational system which has a high dropout rate. Ms. Clary views the proposed facility as a positive development for all concerned.<sup>11</sup>

Jerry L. Marston, chairman of the Concerned Taxpayers of Brunswick County, a local citizen's group interested in environmental and tax issues, stated that Brunswick County has historically depended on farming which is now fading as a way of life. Brunswick County, according to Mr. Marston, must look to other means for support of its institutions and school system. Mr. Marston urged approval of the proposed Kinder Morgan Virginia facility as an industry that will bring much needed life to Brunswick County and its towns. Mr. Marston visited a Kinder Morgan plant in Fort Lupton, Colorado, with many questions concerning the environmental impact of the proposed facility in Brunswick County. Mr. Marston stated that he received answers to all of his questions in a very satisfactory manner.<sup>12</sup>

J. Grady Martin, chairman of the Brunswick County Board of Supervisors, reiterated the need for tax revenues to upgrade the county's infrastructure and schools to provide for a better quality of life for Brunswick County citizens. Mr. Martin pointed out that, while the two prisons and landfill located in the county do provide jobs, the proposed Kinder Morgan facility is the type of industry the county would like to attract. Mr. Martin emphasized that Mr. Iadarola of Kinder Morgan Virginia has spoken to more than twenty-eight groups in an effort to educate the citizens of the county about the proposed facility. He stated that the Planning Commission and the Board of Supervisors have approved the Company's application for a conditional use permit. Mr. Martin further pointed out that Kinder Morgan Virginia has agreed to meet or has met all of the thirty-two conditions contained in the conditional use permit. Mr. Martin emphasized that the citizens of Brunswick County want the proposed Kinder Morgan Virginia facility and look forward to the enhanced quality of life that will result from the presence of this facility in their county.<sup>13</sup>

#### *TESTIMONY AND EVIDENCE*

Kinder Morgan Virginia presented the testimony of two witnesses: Mr. Joseph D. Hopper, vice president and general manager of Kinder Morgan Power, and Mr. Carmine Iadarola, president

---

<sup>10</sup>Tr. 9, 10, 11.

<sup>11</sup>Tr. 14.

<sup>12</sup>Tr. 16, 18.

<sup>13</sup>Tr. 21-24.

of AquaSan Network, Inc., and project manager for the Kinder Morgan Virginia project proposed for Brunswick County.

Mr. Hopper, in his prefiled direct testimony, described the facility as a 560 MW natural gas-fired plant that will be used principally to service intermediate demand, with the capability of providing lesser amounts of peak and base load power. The facility would be located in a heavily wooded area off State Route 603 in the southeastern corner of Brunswick County. The proposed facility will use only natural gas and steam to produce electricity. The facility will typically operate 16 hours per day, up to six days per week. As previously noted, the facility would use six General Electric LM6000 aeroderivative combustion turbines, one General Electric Frame 7EA combustion turbine and two steam turbines. Each of the seven gas combustion turbines would be fitted with heat recovery boilers and supplemental duct firing. The exhaust from each of the seven turbines will be routed through their heat recovery boilers and the steam produced will drive the two steam turbines. The facility is capable of reaching full capacity within 40 minutes when operating at a minimum load in anticipation of being dispatched and within two hours when the entire plant is off line.<sup>14</sup>

The principal structures of the proposed facility will include a building containing the turbines and boilers, cooling towers, an electrical substation, and an administrative/warehouse building. Preliminary site clearing was scheduled to begin in January 2002, with construction scheduled for the first quarter of 2002. The total construction time is estimated to be 22 to 24 months.<sup>15</sup>

The total investment for the Brunswick facility is estimated to be approximately \$300 million. Long-term debt and equity will be used to finance the facility. Prior to obtaining permanent financing, Kinder Morgan Virginia will fund the cost of development, including construction and equipment purchases.<sup>16</sup>

Mr. Hopper further testified that the proposed Brunswick facility will obtain natural gas via a connection with Transco's 20-inch interstate pipeline located approximately two miles from the plant site. Preliminary discussions with Transco indicate that it can accommodate the Brunswick facility's needs with minor modifications to its existing facilities. The gas interconnection facilities will be owned and operated by Transco. There will be no gas storage facilities on site.<sup>17</sup>

Mr. Hopper explained that all of the electricity produced by the proposed facility will either be transferred through an energy conversion services arrangement to a major power marketing company not affiliated with Kinder Morgan Virginia or the power will be sold on a wholesale basis. In 2001, Kinder Morgan entered into an agreement with a major power marketer in connection with other plants being built by Kinder Morgan. Under this energy conversion services agreement ("tolling agreement"), the marketing company will supply the natural gas for the plants and will

---

<sup>14</sup>Ex. JDH-1 at 3, 5.

<sup>15</sup>Id. at 6.

<sup>16</sup>Kinder Morgan Virginia has \$8.4 billion in assets and shareholder equity of \$1.8 billion as of December 31, 2000. Kinder Morgan Virginia has a Standard & Poor's credit rating of BBB. (Ex. JDH-1, at 8).

<sup>17</sup>Id. at 11.

market and sell the power. The energy marketing company determines which of Kinder Morgan Virginia's plants will be included under the tolling agreement.

Mr. Hopper testified that the facility will interconnect with Dominion Virginia Power's 500 kV Carson-Wake transmission line, which is adjacent to the facility site. The site also adjoins the right-of-way of a major water transmission line operated by the Cities of Virginia Beach and Chesapeake.<sup>18</sup> Kinder Morgan Virginia has also discussed purchasing water from Brunswick County as the preferred option for meeting the facility's water requirements. Mr. Hopper states that, with an expected average daily water usage of 3.2 million gallons and an expected peak demand of 5.2 million gallons per day, the Brunswick Generating Station would be a very substantial water customer. This demand could make the development of necessary infrastructure feasible for the Brunswick County water system to serve the county's designated growth areas.<sup>19</sup>

Mr. Hopper maintains that the public interest would be served by the proposed facility because the transmission grid would be more reliable and the project would provide a number of benefits for the local economy and the Commonwealth. Further, the project would facilitate economic development, increase competition among electric suppliers, and provide a relatively clean source of energy. Mr. Hopper estimates the project will generate more than \$1 million annually in state and local taxes. The economic benefits also include the additional jobs that will be created. During the construction phase, the project will create about 85 construction jobs, with almost 250 workers during the peak periods of construction. After commercial operations begin, the facility will employ approximately 25 full-time workers with an annual payroll of over \$1.8 million.<sup>20</sup>

The conditional use permit required for the proposed facility has the approval of the Brunswick County Planning Commission and the Brunswick County Board of Supervisors. In addition, the Towns of Alberta and Broadnax and the Brunswick Chamber of Commerce have passed resolutions of support. Dominion Virginia Power has submitted a letter in support of the proposed project, stating that the facility will help ensure the continued reliability of Virginia's supply of electricity and will promote the development of a vigorous competitive retail market for electricity.<sup>21</sup>

Carmine Iadarola also presented testimony regarding the environmental impact of the proposed facility. Mr. Iadarola testified that the proposed 50-acre site for the Brunswick Generating Station is located within a much larger, heavily wooded, 1273-acre parcel of land owned by Champion International, Inc.<sup>22</sup> Although the facility will contain an emergency diesel generator, natural gas will be the exclusive fuel for the combustion turbines and duct burners.

Emission controls for the proposed facility include a dry low-NO<sub>x</sub> combustor in the large Frame unit and steam-injection in the small aeroderivative units. Emissions of particulate matter ("PM<sub>10</sub>") will be minimized through the sole use of natural gas. Emissions of carbon monoxide

---

<sup>18</sup>Id. at 11.

<sup>19</sup>Id. at 14.

<sup>20</sup>Id. at 13.

<sup>21</sup>Application, Appendix O; See Ex. JDH-1 at 14.

<sup>22</sup>Champion International, Inc. merged with International Paper Company.

("CO"), volatile organic compounds ("VOC") and PM<sub>10</sub> will be limited by good combustion practices. Mr. Iadarola states that Kinder Morgan Virginia's air permit application demonstrates that Best Available Control Technology ("BACT") will be applied to each affected pollutant. Air quality impacts from the project will be well below all National Ambient Air Quality Standards, according to Mr. Iadarola. Moreover, he states that air quality analyses will demonstrate that impacts from the proposed facility will be much lower than the maximum allowable increases in air quality specified by the 1977 Amendments to the federal Clean Air Act.<sup>23</sup>

Mr. Iadarola further testified that additional air quality analyses will be performed to ensure that the natural resources of one national park and two national wilderness areas, each located more than 100 km from the proposed site, will not be adversely affected by emissions from the proposed facility. He states that the proposed facility will satisfy all applicable New Source Performance Standards and will not be subject to any hazardous air pollutants requirements.<sup>24</sup>

The Virginia Department of Environmental Quality ("DEQ") is currently developing a new NO<sub>x</sub> control regulation in response to the federal Environmental Protection Agency's ("EPA") mandate to many states along the east coast and in the Midwest to revise their State Implementation Plans to achieve greater emission reductions of NO<sub>x</sub> in an effort to combat ground level ozone.<sup>25</sup> Virginia's allowable NO<sub>x</sub> emissions levels will be approximately 20,000 tons per year less than existing emissions in the state. Although the Virginia General Assembly set aside at least 5% of the allowable NO<sub>x</sub> emissions allocation for new electric generating plants, it will be necessary for Kinder Morgan Virginia to procure certain NO<sub>x</sub> allowances from the emerging market now developing for that commodity.<sup>26</sup>

Mr. Iadarola testified that the Brunswick Generating Station will comply with extensive monitoring requirements pursuant to applicable federal New Source Performance Standards contained in 40 C.F.R. Part 60, Subparts GG and D(a); federal acid rain prevention program requirements described at 40 C.F.R. Part 75; Virginia Statutory and Regulatory Requirements; monitoring provisions inserted by DEQ as a part of the PSD permit; and any conditions that will be included in an operating permit required under Title V of the Clean Air Act Amendments of 1990. Mr. Iadarola maintains that Kinder Morgan and Kinder Morgan Virginia personnel have extensive experience with environmental compliance and a long track record of strict adherence to all environmental permits and approvals.<sup>27</sup>

The proposed Brunswick Generating Station will have an average water requirement of approximately 3.2 million gallons of water per day ("MGD"). Winter usage will average 1.6 MGD, summer usage will average 3.8 MGD and peak water demand will be 5.2 MGD. Peak demand should occur no more than 30 days per year. Kinder Morgan Virginia proposes to purchase treated water from Brunswick County. To that end, Brunswick County has applied for a Virginia Water Protection Permit with DEQ. The permit is to provide a water supply for the proposed facility and

---

<sup>23</sup>Ex. CI-2, at 1, 3, 4. Kinder Morgan Virginia's emission calculations is contained in Appendix D and the ambient air quality model is set forth in Appendix H to the Application.

<sup>24</sup>Ex. CI-2, at 5.

<sup>25</sup>The EPA is requiring states to cap their total nitrogen oxide emissions from stationary sources at an annual level set by the federal agency.

<sup>26</sup>Ex. CI-2, at 7.

<sup>27</sup>Id. at 10.

other county needs. In conjunction with the Application, Brunswick County conducted instream flow modeling for the Meherrin River. DEQ will use the model in the review of the county's application.<sup>28</sup> The Company has several options with regard to the water supply for the project. These options include withdrawal from the Meherrin River, withdrawal from Reedy Creek in Brunswick County coupled with the construction of a reservoir for use in time of drought, and withdrawal from the Lake Gaston pipeline which runs adjacent to the proposed plant site.<sup>29</sup>

The operation of the plant will produce an average of 650,000 gallons per day of wastewater effluent consisting primarily of cooling tower blowdown and low volume water sources and storm-water. Peak discharge from the plant may reach up to 1.5 MGD. The wastewater will be discharged from the plant site to either Quarrel Creek or Rocky Run, both of which flow to Fountains Creek and then to the Meherrin River near Hugo, Virginia, approximately 21 miles downstream from the plant. An application for a permit for effluent discharge from the facility was to be submitted to DEQ in August of 2001.<sup>30</sup> There is nothing in the record to indicate that the application was filed.

Potable water will need to be treated on site and, depending upon the number of employees, that treatment activity may trigger the permitting and monitoring requirements of the Safe Drinking Water Act. The facility also will need to comply with the Clean Water Act and the regulations administered by the Virginia Department of Health. Potentially, the preparation of a Spill Prevention Control and Countermeasures Plan and a Pollution Prevention Plan may be necessary. All solid waste, including those that may be classified as hazardous will be disposed of off site at licensed facilities. No hazardous waste treatment, storage or disposal facility permit will be required as these activities will not be undertaken at the plant site.<sup>31</sup>

In conclusion, Mr. Iadarola noted that the Brunswick County Planning Commission and Brunswick County Board of Supervisors voted unanimously for a conditional use permit containing 34 conditions which serve to protect the health, safety, welfare, and environment of Brunswick County.

The Staff presented the testimony of five witnesses: Eswara B. Raju, senior utilities engineer in the Commission's Division of Energy Regulation; Lawrence T. Oliver, assistant director of the Commission's Division of Economics and Finance; Jarilaos Stavrou, principal research analyst in the Commission's Division of Economics and Finance;<sup>32</sup> Joseph P. Hassell, environmental program manager, DEQ, Office of Water Permits; and Jaime Bauer, environmental engineer, DEQ.

---

<sup>28</sup>Id. at 7-8.

<sup>29</sup>Mr. Iadarola testified at the hearing that the Company intends to obtain a withdrawal permit for water from Lake Gaston. This source is to provide a second, or backup supply of water in times of low flow in the Meherrin River. (Tr. 91). Brunswick County has contacted the City of Virginia Beach, the primary recipient of the water transported in the Lake Gaston pipeline, and received a preliminary indication that the city is willing to let Kinder Morgan Virginia use some of the water. (Tr. 98).

<sup>30</sup>Ex. CI-2, at 8.

<sup>31</sup>Id. at 9.

<sup>32</sup>The testimony of these three witnesses was stipulated and entered into the record without cross-examination.



Mr. Raju provided an overview evaluation of Kinder Morgan Virginia's Application. Initially, Mr. Raju considered the criteria found in § 56-265.2 B of the Code of Virginia in evaluating the Application. Under this statute, the Commission may issue a CPCN for an electric generating facility upon finding that it: (i) will have no material adverse effect upon the rates paid by customers of any regulated public utility, (ii) will have no material adverse effect upon the reliability of electric service, and (iii) is not otherwise contrary to the public interest.

In its August 3, 2001, Order issued in Case No. PUE010313, the Commission found that § 56-265.2 B will be supplanted by § 56-580 D, effective January 1, 2002, upon the deregulation of the generation of electric energy pursuant to § 56-577 A 3 of the Code of Virginia. The only difference in the two Code sections is that § 56-265.2 B eliminates the requirement that a proposed electric generating facility will have no material adverse effect upon the rates paid by customers of any regulated public utility in the Commonwealth. Since § 56-265.2 B remains applicable until January 1, 2002, Staff considered the criteria of both Code sections in its evaluation of the Company's Application.

Mr. Raju notes that the Company received a preliminary system impact study from Dominion Virginia Power,<sup>33</sup> in which Dominion Virginia Power concluded that power from the proposed facility can be accommodated from a transient system stability aspect on January 2004. Any additional costs resulting from the final evaluation of the interconnection will be borne by Kinder Morgan Virginia. In addition, the Company will be responsible for the up-front and ongoing costs associated with the interconnection. Based on this information, Mr. Raju concluded that the addition of the proposed facility will not impact Dominion Virginia Power's rates and reliability.

Mr. Raju further notes that Kinder Morgan, Inc., owns and operates nearly 30,000 miles of natural gas pipeline in 26 states, and stores and transfers gasoline, other petroleum products, and chemicals. Kinder Morgan Power Company has almost 1,500 MW of electric power generation under construction or in operation. It is planning to develop additional generating capacity of approximately 3,850 MW throughout the United States. In Virginia, Kinder Morgan is planning to develop two similar plants in Campbell County and another location. Staff believes that Kinder Morgan Virginia with Kinder Morgan's participation, is capable of developing this facility.<sup>34</sup>

Staff believes that the proposed facility generally meets the criteria set forth in § 56-265.2 B of the Code of Virginia as it relates to the financial impact on regulated rates and electrical reliability. The proposed configuration of the generating units will facilitate the plant in operating efficiently at different load conditions. The transmission interconnection appears to be realistic and fuel supply from Transco is more than adequate.<sup>35</sup>

Mr. Oliver's testimony addresses the Company's financial ability to complete the project. Kinder Morgan Virginia is a Delaware limited liability company authorized to do business in Virginia as of June 26, 2001. It is wholly owned by Kinder Morgan Power Company ("Kinder Morgan Power") which is the sole member of the limited liability company. Kinder Morgan Power is wholly owned by Kinder Morgan. Kinder Morgan's stock trades on the New York Stock

---

<sup>33</sup>Ex. 1 of the Company supplemental filing of September 27, 2001; Ex. EBR-7, at 5.

<sup>34</sup>Ex. EBR-7, at 8.

<sup>35</sup>Id. at 12.

Exchange and one of its principal assets is Kinder Morgan Power. According to Kinder Morgan's 2000 annual report, Kinder Morgan Power announced plans to build 3,300 MW of gas-fired generation in partnership with a unit of the Williams Company. Through a 16-year tolling agreement, the Williams Company will supply fuel to, and market electricity from, the six plants.<sup>36</sup>

In Mr. Oliver's opinion, Kinder Morgan Virginia, through its affiliation with Kinder Morgan, has the financial resources necessary to construct the proposed facility. On a short-term financing basis, Kinder Morgan, as of December 31, 2000, had cash available on hand of approximately \$142 million. Kinder Morgan generated approximately \$345 million in cash from continuing operating activities in the 2000 calendar year. Kinder Morgan also has in place \$900 million in revolving bank lines of credit as well as a \$150 million accounts receivable sales facility<sup>37</sup> which also provides short-term liquidity.<sup>38</sup>

Although the construction of six gas-fired facilities could strain Kinder Morgan's short-term cash flow, Mr. Oliver does not view this as a problem. As noted, the proposed facility in Brunswick County will ultimately be funded with long-term debt and equity. In this regard, with a "BBB" senior bond rating by Standard & Poor's, Kinder Morgan can access long-term capital markets on reasonable terms. Mr. Oliver believes the Company has the financial ability to complete the proposed facility in Brunswick County. However, the potential cash flow problems from construction of six such facilities could restrain Kinder Morgan's time schedule as to some of the projects. Accordingly, Mr. Oliver recommends a sunset provision by which the certificate would expire if construction on the proposed facility is not commenced within two years of the Commission's order granting the CPCN.<sup>39</sup>

Mr. Stavrou's testimony addresses the economic impact derived from the construction of the proposed facility and evaluates whether it is in the public interest. Mr. Stavrou states that the Company had KPMG, L.L.C. Economic Consulting Services ("KPMG") conduct an analysis of the local economic and tax revenue impacts of the proposed facility. KPMG found that during the two-year construction period, the proposed facility will result in approximately \$38 million in direct and indirect expenditures in the region and create between 106 and 159 construction jobs. Upon completion, the proposed facility is expected to have a value of approximately \$300 million and create approximately 24 permanent jobs, with an annual payroll of \$1.8 million. The Economic Development Office of the County's Industrial Development Authority estimates that the proposed facility will provide \$1.0 million in new state and local revenues and \$10 million in local spending per year.<sup>40</sup>

The Company expects the county will receive about \$1.1 million per year, including about \$0.7 million in property taxes in the first five years of the facility's operation. In addition, the Company will contribute about \$0.3 million per year, for a period of 15 years, to cover 25 percent of the debt service for a new water processing plant envisioned by the county. The Company's

---

<sup>36</sup>Ex. LTO-8, at 2.

<sup>37</sup>Kinder Morgan has in place a five year agreement executed in September of 1999 to sell accounts receivable from certain of its wholly owned subsidiaries.

<sup>38</sup>Id. at 3.

<sup>39</sup>Id. at 4.

<sup>40</sup>Ex. JS-9, at 2.

water purchases will contribute to lower the county's water costs by increasing economies of scale at the water plant. The Company states that at the present time it has received no grants, concessions, or tax benefits from either the county or the Commonwealth. In Staff's opinion, the proposed facility will provide significant economic benefits to Brunswick County and the Commonwealth.

Upon completion, the proposed facility will add 560 MW of generating capacity to the Dominion Virginia Power service area. Dominion Virginia Power will not own or control this capacity unless they enter into a tolling agreement with the Company. Because concentration of merchant plant capacity in the control of incumbent utilities or their affiliates could raise market power concerns, the Commission could direct the Company to report the name and corporate affiliation of any company entering into a tolling agreement with the Company. In conclusion, Staff finds the proposed facility to be reasonable and in the public interest and does not oppose the Company's request for a CPCN.

Section 56-46.1 of the Code of Virginia requires the Commission, when granting approval for the construction of any electrical utility facility, to consider the effect of that facility on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact. To that end, DEQ coordinates the review of reports regarding the proposed facilities from state agencies concerned with environmental protection. This information is filed with the Commission in a report from DEQ summarizing the potential impacts to natural resources from construction and operation of the proposed power plant and associated facilities as well as recommendations for minimizing those impacts.<sup>41</sup>

Brunswick County has filed an application for a Virginia Water Protection Permit ("VWPP") to withdraw 7.7<sup>42</sup> MGD from the Meherrin River.<sup>43</sup> According to the DEQ Office of Water Permits ("DEQ-OWP"), this is a relatively large volume of water to be taken from a relatively small river which has a flow of approximately 16 MGD during dry conditions.<sup>44</sup> According to Mr. Hassell of DEQ, however, the average flow of the Meherrin River at the proposed intake site is about 650 cubic feet per second ("cfs"). The county proposes to withdraw a maximum of about 12 cfs, which is about one and one-half percent of the river flow under average conditions. The Department of Game and Inland Fisheries ("DGIF") has recommended that during times of drought conditions when river flow reaches 40 cfs, the county should not be allowed to withdraw water for the proposed facility. Because the county is a municipal entity, it would be allowed for public health reasons to withdraw one million gallons per day regardless of the river flow.<sup>45</sup> The VWPP will incorporate recommendations submitted by DGIF that will allow water to be taken from the river while protecting the existing in-stream beneficial uses of the river. At this point in the

---

<sup>41</sup>This report is found in Appendix A to Ex. EBR-7.

<sup>42</sup>The original application placed this figure at 8.2 MGD. Based on modeling by the Company and Brunswick County, this figure was scaled back to 7.7 MGD.

<sup>43</sup>This project includes a seven-mile long water pipeline from the project site to the proposed water treatment plant to be constructed approximately 15 miles east of Lawrenceville. Raw water would be taken from the Meherrin River and Brunswick County would construct the necessary reservoirs to ensure that it can meet peak demands. (Ex. EBR-7, Appendix A at 3).

<sup>44</sup>*Id.* at 4.

<sup>45</sup>Tr. 78, 79.

permit review, DEQ is unsure whether the permit conditions will allow sufficient water to be withdrawn to satisfy the proposed multiple uses, but it is optimistic.<sup>46</sup>

The VWPP application made by Brunswick County includes a reservoir to provide a 30-day supply of water during periods of low flow in the river. DGIF supports the construction of the reservoir and recommends the Applicant:

1. Provide an overlay of the reservoir on top of the mapped wetlands to determine the exact acreage of the wetlands that will be affected, and a conceptual wetland mitigation package to DEQ-OWP;<sup>47</sup>
2. Install an automated gauge at the project site to more accurately measure the stream flow;<sup>48</sup>
3. Consider including recreational uses of the reservoir such as public angling and boating;<sup>49</sup>
4. Follow DGIF's recommendations as conditions of its CPCN in order to protect fishery resources in the Meherrin River.
5. Provide a mesh size of 1.0 millimeters and ensure an intake velocity of 0.25 feet per second in order to protect fish at the water intake structure;<sup>50</sup>
6. Conduct an inventory of suitable habitat for rare mussels in the project vicinity; and
7. Implement the following recommendations during the construction phase of the project to protect aquatic resources:

---

<sup>46</sup>Ex. EBR-7, Appendix A at 3, 4.

<sup>47</sup>DEQ-OWP indicated that the proposed reservoir would flood 5 to 10 acres of wetlands. However, the site chosen for the reservoir has fewer impacts than an alternate site. Wetlands impacts will require compensatory mitigation and will also be regulated by the VWPP. According to the National Wetlands Inventory maps, no streams or wetlands are present at the facility site. (*Id.* at 4).

<sup>48</sup>DGIF recommends that when the flow rate at the new gage ranges from 10-25% of mean annual flow (MAF), the water withdrawal volume should be reduced to 10% of the instantaneous flow while considering existing consumptive uses. If the stream flow drops below 10% MAF, voluntary conservation should be implemented. If the stream flow drops below 6%, mandatory conservation should be implemented and industrial consumptive use should cease. (*Id.* at 6).

<sup>49</sup>Company witness Iadarola's only concern with this provision is that the reservoir be primarily a source of water for the facility and that there would be no question regarding the drawdown during times of low steam flow in the river. (Tr. 91; Ex. IA-10, at 3).

<sup>50</sup>There is a risk at water intakes that larval fish stages will stick to the intake screen (impingement), or be pulled through the screen with the water (entrainment). DGIF funded a study of water intakes by researchers at Randolph-Macon College and Virginia Commonwealth University in 1999 to assist its staff in making scientifically sound and reasonable design recommendations for water intake projects. The study concluded that a 1.0 mm mesh intake screen and a 0.25 foot-per-second (fps) intake velocity would provide maximum protection from impingement and entrainment. The study also recommended orienting the intake screen so as to fully utilize the stream's sweeping velocity (the natural flow parallel and adjacent to the screen face) to further reduce impingement and entrainment. Moreover, adjacent screen bay piers and walls should be flush with the screen surface so that the sweeping velocity is not impeded. DGIF consistently recommends the 1.0 mm mesh size and the 0.25 fps approach velocity in its review of Virginia Water Protection Permits. (*Id.* at 6).

- Conduct in-stream activities during low-flow conditions;
- Use non-erodible cofferdams to isolate the construction area;
- Block no more than 50% of the stream flow at any given time;
- Stockpile excavated material in a manner that prevents its re-entry into the stream;
- Restore original streambed and streambank contours;
- Re-vegetate barren areas;
- Implement strict erosion and sediment controls throughout the project period, pursuant to the Department of Conservation and Recreation's *Virginia Erosion and Sediment Control Handbook* (1992).

Other recommendations included in the DEQ report are:

1. Include in the Erosion and Sediment Control Plan stormwater management for all land-disturbing activities associated with the project; and
2. Comply with the National Historic Preservation Act Section 106 coordination requirements with the Department of Historic Resources, if applicable.

In his rebuttal testimony Company witness Iadarola addressed several issues raised in the DEQ report.

- Kinder Morgan Virginia, in conjunction with Brunswick County, has completed a wetlands delineation in all project areas, including the reservoir and the gas transmission line. The delineation has been confirmed by the U.S. Army Corps of Engineers. Mr. Iadarola states that the Company has committed to provide wetlands mitigation at a ratio of at least 2:1. Kinder Morgan Virginia will construct like-kind wetlands in two locations: at the reservoir site and the area adjacent to the generating plant. The proposed facility and the Brunswick County Water Works ("BWV") will disturb 5.2 acres of forested wetland habitat. The Company and Brunswick County will construct 10.5 acres of replacement wetland on the project site. The Company is currently negotiating to create a wetland function and value educational facility at Doyle Lake to be operated by a local community college for the benefit of the community.<sup>51</sup>
- Kinder Morgan Virginia will contribute \$2,500 per year toward the operation of the Lawrenceville and Emporia stream gauges on the Meherrin River to be operated by DEQ.<sup>52</sup>
- The Company will utilize best management practices ("BMP") for sediment and erosion control during all construction phases. The BMP will include

---

<sup>51</sup>Ex. IA-10, Environmental Protection Plan, p. 4.

<sup>52</sup>Id.

vegetation protection, erosion control measures, and the use of in-river construction practices recommended by DGIF. A stormwater management plan will be prepared and implemented for both the proposed facility and the BWW. The Company will construct and operate a wetland treatment and cooling lagoon system to provide both metal sequestration and effluent cooling. This site will be approximately eight acres in size.<sup>53</sup>

- As a part of the Company's commitment to the protection of endangered species, the Company will donate \$25,000 to research efforts at Virginia Tech toward ongoing research regarding the habitat requirements of the Roanoke Logperch.<sup>54</sup>
- The Company will assist Brunswick County and the City of Lawrenceville in the development and implementation of local water conservation programs that will be implemented in drought conditions. Furthermore, Kinder Morgan Virginia will implement voluntary and mandatory water conservation measures at the generating station during drought conditions. Specifically, if the low flow season discharge at the point-of-diversion is projected to be less than 163 cfs, voluntary conservation strategies designed to reduce demand by 10% will be implemented. If the low flow season discharge is at 39 cfs, mandatory conservation strategies are projected to reduce demand by 20%.<sup>55</sup>
- In order to protect aquatic resources, diversion from the Meherrin River system will be restricted to 20% of the available streamflow when river flows drop to less than 163 cfs at the point of diversion.<sup>56</sup>
- Diversions from the Meherrin River will be curtailed when streamflow falls below 39 cfs except that 1 MGD is proposed for critical municipal uses. Water used at the proposed facility will be limited to water already in storage.<sup>57</sup>
- The Meherrin River intake will be designed to have an intake velocity not greater than 0.25 fps using a 1.0 mm mesh to protect aquatic resources.<sup>58</sup>
- The Company is working with the City of Lawrenceville to support the utilization of treated effluent from the City's recently upgraded wastewater

---

<sup>53</sup>Id. at 5.

<sup>54</sup>Id. The Department of Conservation and Recreation's Division of Natural Heritage has searched its data system for natural heritage resources in the area in question. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations. Rare mussels have been documented upstream of the proposed water intake and may exist at the project site if suitable habitat is present. (Ex. EBR-7, Appendix A at 7).

<sup>55</sup>Id. at 2.

<sup>56</sup>Id. at 3.

<sup>57</sup>Id.

<sup>58</sup>Id. at 3.

treatment facility. This water resource will help maintain streamflow in the Meherrin River.<sup>59</sup>

- Kinder Morgan Virginia will abide by and comply with every condition contained in all permits that may be issued.<sup>60</sup>

## **DISCUSSION**

### *Standard of Review*

This Application was filed prior to January 1, 2002, when the standards applicable to approval were set forth in § 56-265.2 B of the Code of Virginia. Thus, Kinder Morgan Virginia based its case and offered evidence to satisfy the requirements of that Code section.

Section 56-265.2 B of the Code of Virginia provides, in part, that:

the Commission...may permit the construction and operation of electrical generating facilities, which shall not be included in the rate base of any regulated utility whose rates are established pursuant to Chapter 10 (§ 56-232 *et seq.*) of this title, upon a finding that such generating facility and associated facilities including transmission lines and equipment (i) will have no material adverse effect upon the rates paid by customers of any regulated public utility in the Commonwealth; (ii) will have no material adverse effect upon reliability of electric service provided by any such regulated public utility; and (iii) are not otherwise contrary to the public interest. In review of its petition for a certificate to construct and operate a generating facility described in this subsection, the Commission shall give consideration to the effect of the facility and associated facilities, including transmission lines and equipment, on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact as provided in § 56-46.1. Facilities authorized by a certificate issued pursuant to this subsection may be exempted by the Commission from the provisions of Chapter 10 (Section 56-232 *et seq.*) of Title 56.

The Commission, however, has held that the Restructuring Act<sup>61</sup> replaces the requirements for approval contained in §§ 56-234.3 and 56-265.2 on and after January 1, 2002.<sup>62</sup> Specifically, the Commission held that “the Act does operate so that provisions of the Act supplant §§ 56-234.3 and 56-265.2 on and after January 1, 2002.”<sup>63</sup> Furthermore, the Commission stated:

---

<sup>59</sup>Id.

<sup>60</sup>Ex. IA-10, at 3, 4.

<sup>61</sup>Virginia Code § 56-576 *et seq.*

<sup>62</sup>*Commonwealth of Virginia at the relation of the State Corporation Commission Ex parte: In the matter of amending filing requirements for applications to construct and operate electric generating facilities*, Case No. PUE010313, Order dated August 3, 2001.

<sup>63</sup>Id. at 3.

Section 56-580 D is designed to replace § 56-265.2 with respect to generation. Specifically, much of the text of § 56-580 D that authorizes the Commission to permit the construction of generating facilities is drawn virtually verbatim from § 56-265.2 B. The material difference is that § 56-580 D requires only two of the three findings required under § 56-265.2 B, eliminating the requirement that a proposed facility will have no material adverse effect upon the rates paid by customers of any regulated public utility in the Commonwealth.<sup>64</sup>

Moreover, § 56-577 A 3 provides that “[o]n and after January 1, 2002, the generation of electric energy shall no longer be subject to regulation under this title (Title 56), except as specified in this chapter (the Restructuring Act).” Therefore, an exemption from the provisions of Chapter 10 of Title 56 is no longer necessary.

Therefore, this Application must also be assessed under the criteria established in § 56-580 D as set forth below:

The Commission may permit the construction and operation of electrical generating facilities upon a finding that such generating facility and associated facilities including transmission lines and equipment (i) will have no material adverse effect upon reliability of electric service provided by any regulated public utility and (ii) are not otherwise contrary to the public interest...the Commission shall give consideration to the effect of the facility and associated facilities, including transmission lines and equipment, on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact as provided in § 56-46.1.

Both §§ 56-265.2 B and 56-580 D incorporate and refer to § 56-46.1 of the Code of Virginia which states in part:

[The Commission] shall give consideration to the effect of that facility on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact. In such proceedings it shall receive and give consideration to all reports that relate to the proposed facility by state agencies concerned with environmental protection; and if requested by any county or municipality in which the facility is proposed to be built, to local comprehensive plans that have been adopted pursuant to Article 3 (§ 15.2-2223 et seq.) of Chapter 22 of Title 15.2. Additionally, the Commission (i) may consider the effect of the proposed facility on economic development within the Commonwealth and (ii) shall consider any improvements in service reliability that may result from the construction of such facility.

---

<sup>64</sup>Id. at 4.



Finally, § 56-596 A sets forth additional criteria that the Commission is to consider in matters relating to the provisions of the Restructuring Act, including the review of petitions for approval to construct and operate electric generating facilities. Specifically, this section states: “In all relevant proceedings pursuant to this Act, the Commission shall take into consideration, among other things, the goals of advancement of competition and economic development in the Commonwealth.”

### **Effect On Rates and Reliability**

The first question to be addressed is whether the proposed facility will have a material adverse effect upon the reliability of the Dominion Virginia Power system. The proposed facility will be interconnected with the Dominion Virginia Power Carson to Wake 500 kV tie line. The proposed plant site is located approximately 37 miles from the Carson Substation and 71 miles from the Wake Substation. Based on a preliminary stability study using data provided by Kinder Morgan Virginia, Dominion Virginia Power concluded that the proposed plant can be accommodated from the transient system stability aspect at the planned site location in Brunswick County in January 2004.<sup>65</sup> It should be noted, however, that the Dominion Virginia Power study was modeled for the power to serve native load and not for off-system sales outside of normal operating conditions.<sup>66</sup>

The cost of any upgrades to the Dominion Virginia Power system will be borne by Kinder Morgan Virginia. Furthermore, Kinder Morgan Virginia will be responsible for the upfront and on-going costs associated with the interconnection. Kinder Morgan Virginia would bear the risk and cost of any upgrades necessary for off-system sales. Based on this information, I find that the addition of the proposed facility will not impact Dominion Virginia Power’s rates or system reliability.

### **Impact on Competition**

Kinder Morgan Virginia will be qualified as an exempt wholesale generator and will sell power on a merchant basis exclusively at wholesale by means of a tolling agreement. The proposed facility will, upon completion, add 560 MW of generating capacity to the Dominion Virginia Power service territory. Staff witness Stavrou states that the incumbent utility will not own this capacity.<sup>67</sup> Certainly adding capacity that is not controlled by the incumbent utility should be considered a positive development in terms of market power. Therefore, I find that the addition of a competitive source of electricity available within Virginia is a positive development for the advancement of competition in the Commonwealth. To this end, Kinder Morgan Virginia should report to the Commission the name and corporate affiliation of any company entering into a tolling agreement with or contract to purchase power (generated at the Brunswick facility) from Kinder Morgan Virginia.

---

<sup>65</sup>Ex. KM-11, at 9.

<sup>66</sup>Id. at 4.

<sup>67</sup>Ex. JS-9, at 3.

## **Gas**

The gas for the proposed facility will be provided by means of a lateral gas pipeline (2.25 miles) to be constructed, owned, and operated by Transcontinental Gas Pipe Line Corporation (“Transco”), an interstate pipeline company regulated by the Federal Energy Regulatory Commission. Columbia Gas, holds a CPCN from the Commission to provide natural gas service in Brunswick County. At the hearing Columbia Gas presented a stipulation<sup>68</sup> that, in pertinent part, precludes Kinder Morgan Virginia from providing gas to third parties and allows Columbia Gas to access the capacity of the lateral gas pipeline at a price reflective of a reasonable return to be determined by future negotiation. The gas transportation infrastructure will be capable of providing the gas for the operation of the proposed facility. Staff witness Raju testified that the fuel supply from Transco is more than adequate.<sup>69</sup>

## **Public Interest and Economic Development**

Without question the proposed Kinder Morgan Virginia facility would provide significant economic benefits to the citizens of Brunswick County and Southside Virginia. The county is relatively poor and the proposed facility will provide tax revenues that will greatly benefit all the citizens of the county. After construction, the 24 permanent jobs will generate annual payrolls of \$1.8 million. Brunswick County will realize about \$1.1 million per year, including about \$0.7 million in property taxes from the proposed facility. In addition, the Company will contribute about \$0.3 million per year, for a period of 15 years, to cover 25 percent of the debt service for a new water processing plant to be built by the county. Brunswick County officials and citizens want this facility to be located in their county.<sup>70</sup> They welcome it with open arms. I find that the proposed facility will provide beneficial economic development and growth to the region and that the proposed facility is in the public interest.

## **Residential Impact**

The single objection to the proposed facility was made by W. Michael Williams, a nearby resident of Greenville County. Mr. Williams wrote a letter filed with the Commission on October 1, 2001, stating that the residents of Doyle's Lake Road, Emporia, Virginia, oppose the site of the proposed facility and ask that it be moved to an industrial park. Mr. Williams states that the residents of this area were not included in the siting process until all decisions were made.

On the other hand, Mr. Iadarola states that he has made significant efforts to inform the public of the proposed facility. Mr. Iadarola has met with citizen groups on numerous occasions<sup>71</sup> and also established a web site that contains most of the public documents associated with the

---

<sup>68</sup>Ex. B.

<sup>69</sup>Ex. EBR-7, at 12.

<sup>70</sup>The proposed facility has received overwhelming community support, including the Brunswick County Industrial Development Authority, the Southside Planning District Commission, the Brunswick Chamber of Commerce, and the Towns of Alberta and Broadnax.

<sup>71</sup>Tr. 22; Kinder Morgan Virginia held meetings in Southside Virginia and northern North Carolina. (Ex. CI-3, at 3).

project. This web site also provided an opportunity for citizens unable to attend meetings to voice their concerns and provide input concerning the project.

Mr. Iadarola addressed the comments made by Mr. Williams in his supplemental testimony filed on October 19, 2001. Mr. Iadarola points out that Mr. Williams addressed both the Planning Commission and the Board of Supervisors when they met to discuss the conditional use permit. Mr. Iadarola also met with residents of Greenville in the many meetings with the public to discuss the project and answer questions. When the Brunswick County Board of Supervisors approved the conditional use permit<sup>72</sup> for the proposed facility, they required Kinder Morgan Virginia to make a good faith effort to acquire an additional 150-foot strip of property along the eastern boundary of the site to further buffer the homes of the Greenville County residents, including Mr. Williams. Kinder Morgan Virginia has entered into an option agreement to purchase the additional land from International Paper.<sup>73</sup>

I find that the concerns of Mr. Williams and the residents of Doyle Lake Road in Greenville County have been sufficiently considered. Mr. Iadarola testified that the Company hand delivered to the residents, notices of the proposed project and its potential impacts. At Mr. Williams' request, Mr. Iadarola met with the Doyle Lake residents.<sup>74</sup> The proposed facility is located in a heavily forested, remote area about one-half mile from the border with Greenville County and about one and one-half miles from Mr. Williams' residence.<sup>75</sup> A total of 250 feet of heavily forested buffer will abate noise from the plant in the direction of Greenville County. Furthermore, it should be noted that Mr. Williams and other residents from DoYLES Lake Road did not appear at the hearing on November 7, 2001. As to other residents in the vicinity, the closest resident to the north is over two and one-half miles away; the closest resident to the west almost four miles away. There are no residents within several miles to the south of the proposed facility.<sup>76</sup>

I find the proposed facility's impact on the surrounding community would be minimal, if any. The enhanced buffer surrounding the site is densely wooded and will effectively shield the proposed facility from view and from noise pollution. However, this buffer will need to be maintained to provide an effective shield in the future.

### **Water and Wetlands**

Joseph P. Hassell, an environmental program manager with the Virginia Water Protection permit program in DEQ's office of water permits, explained that a Virginia water protection permit ("VWPP") is issued for anyone who discharges, dredges or introduces fill material into Virginia's water and sets limits for the amount of water to be withdrawn. The VWPP also requires compensation for wetlands impacts. The reservoir proposed by the BRW for the benefit of Kinder

---

<sup>72</sup>The final conditional use permit is Ex. IA-6.

<sup>73</sup>A map showing the additional buffer was introduced into the record as Ex. IA-4.

<sup>74</sup>Tr. 54.

<sup>75</sup>Tr. 51, 52.

<sup>76</sup>Tr. 61, 62; Map, Ex. IA-5.

Morgan Virginia will impact approximately five acres of wetlands. Mr. Iadarola has testified that the Company will replace impacted wetlands on a two-to-one basis.<sup>77</sup>

Kinder Morgan Virginia and Brunswick County conducted an analysis to assess water availability and the environmental conditions on the Meherrin River system. The water supply yield analysis model used stream gauging data from the Meherrin River near Lawrenceville from January 1, 1929, through December 31, 1999. The mean annual stream flow at the point of diversion is estimated to be 654 cfs. The maximum diversion rate of the Brunswick Regional Waterworks will be approximately 12.7 cfs.

Low stream flow conditions occur on a regular basis on the Meherrin River. The BWV incorporates a water storage reservoir to provide a firm water supply during times of drought. The estimated maximum operational capacity of the reservoir is 250 million gallons.<sup>78</sup>

Mr. Iadarola testified that Kinder Morgan Virginia plans to move forward with steps to obtain a withdrawal permit for water from Lake Gaston. This would provide an additional backup source of water when the Meherrin River is low. Brunswick County has contacted the City of Virginia Beach and, according to Mr. Iadarola, has received preliminary indication that water would be available from the pipeline for the proposed facility. The pipeline is adjacent to the proposed plant site.

The initial water permit application indicated a water demand level of 8.2 MGD. Based on the modeling and the resulting yield of the Meherrin River, the Company and Brunswick County have scaled back their water withdrawal request to 7.7 MGD.<sup>79</sup> This represents approximately one and a half percent of normal stream flow.<sup>80</sup> While the Meherrin River should provide a reliable and adequate source of water for most of the proposed facility's requirements, the 250-million gallon reservoir should be adequate to meet demand during periods of low flow. An additional potential source of water is the Lake Gaston pipeline that runs adjacent to the site. Preliminary indications are that water from the pipeline will be available on an interruptible basis.<sup>81</sup> I find that, with the reservoir, there are adequate water resources available for the operation of the proposed facility. Kinder Morgan Virginia has agreed to replace wetlands on a two-to-one basis. There are 5.2 acres of wetland that will be disturbed. I find the wetlands impact to be minimal and the replacement plan acceptable.

---

<sup>77</sup>Mr. Iadarola testified on rebuttal that a wetlands delineation along the proposed gas pipeline has been completed (Ex. IA-10, at 2). The wetlands impacts associated with the construction of the gas pipeline will be temporary and will be mitigated in accordance with applicable laws and regulations. (Ex. IA-10, at 6).

<sup>78</sup>Tr. 74; Ex. IA-10, Ex. 1.

<sup>79</sup>This reduction is a result in Brunswick County's water demands from 3 MGD to 2.5 MGD. The proposed facility's water requirements remain the same. (Tr. 96, 97; Ex. EBR-7, Appendix A, at 3,4).

<sup>80</sup>Tr. 78.

<sup>81</sup>Tr. 98.

## Air

Virginia's PSD regulations are an EPA-approved part of the Commonwealth's State Implementation Plan ("SIP"). The program is a pre-construction permitting program, meaning the applicant cannot begin actual construction of the proposed facility without obtaining this permit. Under the PSD regulations, the proposed facility is in a listed source category,<sup>82</sup> and it has the potential to emit ("PTE") more than 100 tons per year of one or more criteria pollutants (NO<sub>x</sub>, CO, and PM<sub>10</sub>). Thus, by definition, the project is classified as a major stationary source subject to PSD requirements. In addition to emissions of NO<sub>x</sub>, CO, and PM<sub>10</sub>, emissions of VOC are subject to PSD review because the project's PTE for VOC is greater than the applicable regulatory significance level of 40 tons per year.

Mr. Iadarola points out that the facility will use only natural gas as a fuel and that the plant will be within all applicable environmental standards.<sup>83</sup> Kinder Morgan Virginia states in its permit application that the Company proposes to install Continuous Emissions Monitoring Systems to determine NO<sub>x</sub> and CO emissions from each turbine/duct burner stack. The Company will apply appropriate emission factors to determine the emissions of SO<sub>2</sub>, PM<sub>10</sub>, and VOC.

Mr. Iadarola addressed the new source review ("NSR") permitting program administered by DEQ in his direct testimony. In order for Kinder Morgan Virginia to obtain the necessary construction and operation permits from DEQ, the Applicant must demonstrate that the emission limit of each affected pollutant will be restricted to levels equivalent to the Best Available Control Technology ("BACT") for that pollutant. Mr. Iadarola testified that the air impacts from the proposed facility will be well below all National Ambient Air Quality Standards which have been established to protect public health and welfare. Moreover, Mr. Iadarola states that the air quality impacts from the proposed facility will be much lower than the maximum allowable increases in air quality specified by the 1977 Amendments to the Clean Air Act.<sup>84</sup>

Emission controls for the proposed facility include a dry low-NO<sub>x</sub> combustor in the large Frame unit and steam-injection in the small acorderivative unity. Emissions of PM<sub>10</sub> will be minimized through the sole use of natural gas. Emissions of CO, VOC, and PM<sub>10</sub> will be limited by good combustion practices. Air quality analyses will be performed to ensure that the national park and two national wilderness areas will not be adversely affected by emissions from the proposed facility.<sup>85</sup>

---

<sup>82</sup>A fossil fuel-fired steam electric plant having greater than 250 million Btu per hour heat input.

<sup>83</sup>Tr. 49.

<sup>84</sup>Ex. CI-2, at 3.-4.

<sup>85</sup>Id. at 4-5.

The ambient air quality of Brunswick County has been designated as follows:<sup>86</sup>

- TSP<sup>87</sup> Better than national standards, i.e. attainment
- SO<sub>2</sub> Better than national standards, i.e. attainment
- CO Unclassifiable/attainment
- Ozone One-hour standard not applicable, i.e. attainment
- NO<sub>2</sub> Cannot be classified or better than the national standards, i.e. attainment

Brunswick County is designated as a PSD Class II area.

There are two PSD Class I areas in Virginia – the Shenandoah National Park and the James River Face Wilderness Area. The approximate distances from the site of the proposed Brunswick County plant to these Class I Areas are 200 km and 212 km, respectively.

Air quality was not an issue in this case. Jaime Bauer from DEQ could provide no additional information concerning the Kinder Morgan Virginia air permit. Ms. Bauer provided an overview of the permitting process and stated that she is in the midst of the review for the control technology proposed at the Kinder Morgan Virginia facility.<sup>88</sup> She could provide no information regarding DEQ's approach to the myriad of proposed power plants in Virginia.<sup>89</sup>

Two factors are important in the consideration of air impact from the proposed facility. First, the Kinder Morgan Virginia facility is to be located in Brunswick County. Brunswick County is an attainment area in regard to air quality. Moreover, there are no other generating facilities proposed for the area. Second, and most important, Kinder Morgan Virginia will produce electricity exclusively with natural gas. Thus, the impact on air quality in the Commonwealth from this proposed facility should be minimal.

## **FINDINGS AND RECOMMENDATIONS**

Based on the record and the evidence in this case, **I FIND** that:

1. The proposed facility will have no material adverse effect upon the rates paid by the customers of any regulated public utility in Virginia;
2. The proposed facility will have no material adverse effect upon the reliability of any regulated public utility in Virginia;
3. The proposed facility will serve to enhance competition in the electric industry in Virginia;

---

<sup>86</sup>The following information is taken from the Company's application for a PSD permit and other Virginia air permits filed with the Company's Application with the Commission.

<sup>87</sup>Total Suspended Particulates

<sup>88</sup>Tr. 83.

<sup>89</sup>Tr. 87.

4. The proposed facility will have a positive effect on economic development in Virginia, especially in Brunswick County and Southside Virginia;

5. The proposed facility is not contrary to the public interest;

6. The fact that the proposed facility will use only natural gas as a fuel supports a finding that there should be no significant impact on air quality in the Commonwealth;

7. The wetland impact of the proposed facility will be minimal and Kinder Morgan Virginia will replace wetlands on a 2 to 1 basis;

8. The plan to use water from the Meherrin River with a 250-million gallon reservoir in reserve will not significantly impact the environment;

9. The Commission should grant Kinder Morgan Virginia a CPCN to construct the proposed facility pending receipt of a copy of the water and air permits issued by the Commonwealth;

10. The Commission should approve and adopt the Stipulation entered into between Staff, Kinder Morgan Virginia, and Columbia Gas;

11. The CPCN should incorporate the Stipulation with Columbia Gas of Virginia, Inc.

12. The Commission should direct Kinder Morgan Virginia to report to the Commission the name and corporate affiliation of any company entering into a tolling agreement with or contract to purchase power from Kinder Morgan Virginia;

13. The Commission should require Kinder Morgan Virginia to permanently maintain the buffer area around the plant site; and

14. The CPCN should contain a sunset provision that it will expire two years from the date it is issued if construction on the proposed facility has not commenced.

I therefore **RECOMMEND** that the Commission enter an order that:

1. **ADOPTS** the Stipulation and findings contained in this Report;

2. **GRANTS** Kinder Morgan Virginia interim approval, pursuant to § 56-234.3 of the Code of Virginia, to make financial expenditures and undertake preliminary construction work on the proposed facility;

3. **GRANTS** Kinder Morgan Virginia a CPCN with the conditions set forth herein to construct the proposed facility; and

4. **DISMISSES** this case from the Commission's docket of active cases.

## **COMMENTS**

The parties are advised that any comments (Section 12.1-31 of the Code of Virginia and 5 VAC 5-20-120 C) to this Report must be filed with the Clerk of the Commission in writing, in an original and fifteen (15) copies, within twenty-one (21) days from the date hereof. The mailing address to which any such filing must be sent is Document Control Center, P.O. Box 2118, Richmond, Virginia 23218. Any party filing such comments shall attach a certificate to the foot of such document certifying that copies have been mailed or delivered to all counsel of record and any such party not represented by counsel.

Respectfully submitted,

---

Howard P. Anderson, Jr.  
Hearing Examiner